PHASE II SUBSURFACE INVESTIGATION
Performed at
160 East Illinois Street
Chicago, Illinois
Performed for
Ms. Laurie Bain
Benchmark Project # 00299B

BENCHMARK ENVIRONMENTAL SERVICES, INC.

ENVIRONMENTAL • GEOTECHNICAL • ENGINEERING

August 15, 2000

Ms. Laurie Bain
Bain Environmental, Inc.
5315 N. Clark Street
Suite 144
Chicago, IL 60640

Subject: **Phase II Subsurface Investigation Performed at 160 E. Illinois Street, Chicago, Illinois, Benchmark Project # 00299B**

Dear Ms. Bain:

Enclosed is the report for the Phase II Subsurface Investigation performed by Benchmark Environmental Services, Inc., at the above referenced address. This Investigation was performed to address concerns outlined within a prior Phase I Environmental Assessment (project #00273).

The second phase of this investigation includes performing hand Augured soil borings / samplings in order to investigate the possibility of gross contamination in soils surrounding the UST, near the water pump, and near the silver recovery system.

If you should have any questions regarding this report, please feel free to contact the undersigned at 1-800-400-5811.

Respectfully,

Benchmark Environmental Services, Inc.

William Liniewicz, Master CHMM
Principal

Walter Karla, CHMM
Vice President –
Remediation / Risk Assessment

mgn

42199 North Lake Avenue
P.O. Box 824
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PHASE II SUBSURFACE INVESTIGATION

Performed at
160 East Illinois Street
Chicago, Illinois

Retained by;
Ms. Laurie Bain
Bain Environmental, Inc.
5315 N. Clark Street
Suite 144
Chicago, IL 60640

By:
Benchmark Environmental Services, Inc.
42199 N. Lake Avenue
P.O. Box 824
Antioch, IL 60002

Submitted on August 15, 2000 by:
Mark G. Neuses
Environmental Scientist

Reviewed on August 15, 2000 by:
William Liniewicz, Master CHMM
Principal

Project # 00299B

PHASE II SUBSURFACE INVESTIGATION Performed at
160 E. Illinois Street, Chicago, Illinois
Benchmark Project # 00299B

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PHASE II SUBSURFACE INVESTIGATION Performed at
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I. Introduction

Benchmark Environmental Services, Inc. (Benchmark) was retained by Ms. Laurie Bain, of *Bain Environmental, Inc.*, Chicago, Illinois, to perform a Phase II Subsurface Investigation at 160 E. Illinois Street, Chicago, Illinois. Benchmark previously performed a Phase I Environmental Assessment (project #00421) which resulted in the following recognized environmental conditions regarding the subject site:

The silver recovery system located in the basement of the subject site appears to have leakage / spillage problems. Remaining waste should be properly contained and disposed of. The concrete floors in the immediate area are cracked, possibly allowing migration to subsurface soils.

The water pump oily discharge to below grade soils should be stopped immediately. A Phase II Investigation would be necessary to determine any impacts to subsurface soils.

The boiler room houses a vaulted 5,000 gallon fuel oil underground storage tank (UST). Per Mr. Cheuvront, this UST was last utilized approximately ten (10) years ago. No leakage/spillage was observed adjacent to this UST. As per Mr. Dale Tanke of the OSFM a heating oil UST which was used after January 1, 1974 requires registration. A late registration fee of $500.00 must also be submitted. Currently, there is a deadline of 2001 for required upgrading of the UST. Pending legislation may waive this requirement for pre 1995 UST's. Benchmark recommends tank registration and permanent closure of the system.

Mr. Walter Karla, Benchmark Vice President, and Sean Beinecke, Hydrogeologist, arrived at the subject site at 10:00 a.m. on July 27, 2000. Soil boring locations were determined adjacent to the 5,000 gallon heating fuel oil UST, near the silver recovery system, as well as near the water pump. See the Soil Boring locations diagram in Appendix for specific locations of each soil boring.

A total of four (4) soil samplings were performed on-site. Three of these soil samplings were performed using an electric concrete coring machine and a stainless steel Hand Auger. Two (2) soil samplings (C-2 at 1' BSG and C-2 at 2' BSG) were performed adjacent to the silver recovery system. One (1) soil sampling (C-1) was performed adjacent to the water pump. One soil sampling was performed inside of the brick enclosure of the UST. Soils were field screened, with additional samples taken for laboratory analysis. Four (4) soil samples were submitted to Great Lake Analytical, in Buffalo Grove, Illinois, for analysis of compounds regulated by the Illinois Environmental Protection Agency (IEPA).

The samples were analyzed for the following IEPA specified indicator contaminants:

BTEX – Benzene, Toluene, Ethylbenzene, Xylenes
PNAs – Polynuclear Aromatic Hydrocarbons
PCBs – Polychlorinated Biphenyl's
TCLP Metals
Total Metals

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II. Methodology

During the course of the Phase II Subsurface Investigation, field screened samples were procured continuously, from the surface grade to a depth of 2' – 3' below surface grade (BSG). Laboratory samples were obtained at the bottom of the borings or the groundwater interface, in order to investigate if gross contamination in soils surrounding the UST, near the water pump, and near the silver recovery system is present.

A. Subsurface Soil Borings

Three (3) soil borings were performed utilizing an electric concrete coring machine and a stainless steel Hand Auger.

The boring locations were chosen in accordance with a predetermined plan. Soil boring / sampling locations were determined inside of the enclosure of the 5,000 gallon heating fuel oil UST, adjacent to the silver recovery system, as well as adjacent to the water pump to illustrate if gross contamination is present or non-present in soils in these areas.

A total of four (4) soil samples were obtained for laboratory analysis. One sampling was taken from the backfill of the bricked in UST enclosure. This sample was analyzed for BTEX and PNA compounds. One sample was taken from a soil boring performed adjacent to the water pump at approximately 3' below surface grade (BSG). This sample was analyzed for BTEX, PNA and PCB compounds. Two samples were taken from a soil boring performed adjacent to the silver recovery system. One sample was taken from 1' BSG, another was taken from 2' BSG. These samples were analyzed for TCLP Metals and Total Metals.

B. Soil Sample Collection

Soil samples were obtained at 1'-2' intervals, from surface grade to a depth of 3' BSG.

Benchmark personnel performed the hand auguring operation, collected the soil samples, visually inspected the soil samples for signs of contamination, and classified each soil sample in terms of texture and color in accordance with the Unified Soil Classification System (ASTM D-2487-93 and D-2488-93).

C. Preserving & Transporting Laboratory Soil Samples

Laboratory soil samples were obtained at depths believed to be the highest concentration of contaminants or the possible points of the migration of groundwater for all of the borings. Soil samples for BTEX were collected per EPA SW-846 Method 5035 – Purge and Trap and Extraction for Volatile Organics in Soil and Waste Samples. Preweighed/Preserved 40ml vials (with sodium bisulfate) are filled in the field with 3-5 grams of soil. An additional 2 oz. container with 25 ml of methanol is filled with 25 – 30 grams of soil for BTEX analysis. PNA analysis is performed on the soils contained in the 4 oz. container. Soil samples for PCB compound and Metals analysis were placed into unpreserved 4 oz. containers. The soil samples were then immediately placed into an insulated cooler filled with ice, and subsequently transported to Great Lakes Analytical, Buffalo Grove, Illinois.

Benchmark personnel preserved the soil samples immediately after they were obtained in the field and transported and handled the samples in accordance with the Standard Practices for Preserving and Transporting Soil Samples (ASTM D-4220-95). The following is a summary of the procedures Benchmark personnel performed to preserve, transport and properly handle the soil samples obtained in the field:

- All samples were labeled with the following markings prior to transporting them:
  - job name / number
  - sampling date
  - sample boring number / location
  - depth / elevation
  - special shipping / handling instructions

- All samples were preserved before transportation in laboratory provided, sealed, moistureproof glass-plastic containers of sufficient thickness and strength to ensure against breakage and moisture loss. The glass-plastic container lids are teflon lined.

- All samples were transported in insulated coolers to prevent freezing, thawing or undesirable temperature changes from affecting the samples. The insulated coolers were filled with ice to prevent the volatilized organic constituents from being released during extreme weather conditions. The samples were protected against vibration and shock by using urethane foam as a cushioning material.

Benchmark personnel transported and handled all soil samples using proper Chain-of-Custody Procedures in accordance with the Standard Guide for Sampling Chain-of-Custody Procedures (ASTM D-4840-95).

D. Laboratory Analysis

The four (4) soil samples were analyzed for the following Illinois Environmental Protection Agency (IEPA) specified indicator contaminants:

Two of the four soil samples were analyzed for:
BTEX – Benzene, Toluene, Ethylbenzene, Xylenes
The BTEX samples were analyzed by Gas Chromatography using Method "SWA-846 Method 5035".

Two of the four soil samples were analyzed for:
PNAs – Polynuclear Aromatic Hydrocarbons
The PNA samples were analyzed by High Pressure Liquid Chromatography using Method "EPA 8310".

One of the four soil samples was analyzed for:
PCBs – Polychlorinated Biphenyls
The PCB samples were analyzed using Method "EPA 8082".

Two of the four soil samples were analyzed for:
TCLP Metals – Toxicity Characteristic Leaching Procedure Metals
The TCLP Metals samples were analyzed using "EPA 1311/6000/7000 Series Methods".

Two of the four soil samples were analyzed for:
Total Metals
The Total Metals samples were analyzed using "EPA 6000/7000 Series Methods".

III. Data Review

The BTEX, PNA, and PCB compounds are regulated by the IEPA. Analytical results are summarized below and on the following pages. Laboratory analytical reports are attached in the Appendix.

Laboratory analysis illustrated minor impacts to the sample obtained from inside the bricked UST enclosure, but all well below IEPA TACO Tier 1 CUOs.

Laboratory analysis illustrated that the sample taken from near the water pump exhibited minor concentrations of Total Xylenes and various PNA compounds well below the current IEPA TACO Tier 1 Cleanup Objectives (CUOs). This sample exhibited concentrations of Benzo(a)Pyrene above the IEPA TACO Tier 1 Cleanup Objectives for Ingestion. This sample exhibited no PCB impacts.

Laboratory analysis illustrated that the samples taken from near the silver recovery system exhibited concentrations of Lead, Cadmium, and Silver above the IEPA TACO Tier 1 CUOs for the sample taken at 1' below surface grade (BSG). The sample taken from 2' BSG exhibited concentrations of Cadmium and Silver above the IEPA TACO Tier 1 CUOs, but at a lower concentration than the sample taken from 1' BSG.

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Table 1
BTEX; Benzene, Toluene, Ethylbenzene, Xylenes & Polynuclear Aromatic Hydrocarbons (PNAs)

	Tier 1 Soil Remediation Objectives for Industrial / Commercial Properties		Tier 1 Soil Remediation Objectives for Residential Properties		Soil Component of the Groundwater Ingestion Exposure Route Values		Soil Samples (mg/kg)	
Chemical Name	Ingestion (mg/kg)	Inhalation (mg/kg)	Ingestion (mg/kg)	Inhalation (mg/kg)	Class I (mg/kg)	Class II (mg/kg)	UST backfill	C-1 water pump
BTEX Compounds - Benzene, Toluene, Ethylbenzene, Xylenes								
Benzene	200	1.5	22	0.8	0.03	0.17	<0.025	<0.025
Toluene	410,000	650	16,000	650	12	29	<0.025	<0.025
Ethylbenzene	20,000	400	7,800	400	13	19	<0.025	<0.025
Xylenes	1,000,000	410	160,000	410	150	150	0.0257	0.027
PNAs - Polynuclear Aromatic Compounds								
Acenaphthene	120,000	---	4,700	---	570	2,900	0.0421	0.153
Acenaphthylene	---	---	---	---	---	---	<0.200	<0.200
Anthracene	610,000	---	23,000	---	12,000	59,000	<0.0300	<0.0300
Benzo(a)anthracene	8	---	0.9	---	2	8	<0.0300	0.258
Benzo(a)pyrene	0.8	---	0.09	---	8	82	<0.0300	**0.416**
Benzo(b)fluoranthene	8	---	0.9	---	5	25	<0.0300	0.266
Benzo(ghi)perylene	---	---	---	---	---	---	<0.0300	0.309
Benzo(k)fluoranthene	78	---	9	---	49	250	<0.0300	0.154
Chrysene	780	---	88	---	160	800	<0.0300	0.305
Dibenzo(a,h)anthracene	0.8	---	0.09	---	2	7.6	<0.0300	0.0671
Fluoranthene	82,000	---	3,100	---	4,300	21,000	0.111	0.914
Fluorene	82,000	---	3,100	---	560	2,800	0.0504	0.0346
Indeno(1,2,3-cd)pyrene	8	---	0.9	---	14	69	<0.0300	0.175
Naphthalene	82,000	---	3,100	---	84	420	0.0308	<0.0300
Phenanthrene	---	---	---	---	--	---	0.398	0.287
Pyrene	61,000	---	2,300	---	4,200	21,000	<0.0300	0.570

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Table 2 *Total Metals & Toxicity Characteristic Leaching Procedure Metals*						
	Tier 1 Soil Remediation Objectives for Residential Properties		Soil Component of the Groundwater Ingestion Exposure Route Values		Soil Sample Results (mg/kg)	
Chemical Name	Ingestion (mg/kg)	Inhalation (mg/kg)	Class I (mg/L)	Class II (mg/L)	C-2 1' BSG	C-2 2' BSG
Total Metals(mg/kg)						
Arsenic	0.4	750	---	---	<2.50	<2.50
Barium	5,500	690,000	---	---	39.10	<25.0
Cadmium	78	1,800	---	---	<0.50	<0.50
Chromium	390	270	---	---	20.30	3.20
Lead	400	---	---	---	**650**	334
Selenium	390	---	---	---	<2.50	<2.50
Silver	390	---	---	---	63.8	2.65
Mercury	23	10	---	---	7.67	15.7
TCLP Metals(mg/L)						
Arsenic	---	---	0.05	0.2	<0.1	<0.1
Barium	---	---	2.0	2.0	<1.0	<1.0
Cadmium	---	---	0.005	0.05	**0.0301**	**0.0209**
Chromium	---	---	0.1	1.0	<0.1	<0.1
Lead	---	---	0.0075	0.1	<0.1	<0.1
Selenium	---	---	0.05	0.05	<0.05	<0.05
Silver	---	---	0.05	---	**111**	**11.1**
Mercury	---	---	0.002	0.01	0.00088	0.00035

Table 3. PCB Analysis Results (µg/kg)	
Sample Boring B-2	Total PCB (µg/kg)
PCB 1016	< 25
PCB 1221	< 25
PCB 1232	< 25
PCB 1242	< 25
PCB 1248	< 25
PCB 1254	< 25
PCB 1260	< 25

Analytical results are attached in the Appendix

IV. Geology

USDA Soil Survey Map

According to the U.S. Department of Agriculture (USDA) Soil Conservation Service, the subject site area belongs to the Urban Land – Selma – Oakville soil series (15).

The Urban Land – Selma – Oakville soil series (15) are built up and deep, nearly level, poorly drained soils that have sandy and silty subsoils formed in glacial lake sediment and in glacial outwash. The surface layer is a very dark grayish brown to black fine sand. The subsoil is approximately 36 inches thick. The upper part is a yellowish brown fine sand and the lower part is brownish yellow medium sand. Below the subsoil about 60 inches of fine to medium grain yellowish brown silty sand is present. The underlying material contains sandy loam, silty clay loam, and gravel. This series also includes a small percentage of poorly drained Mundelein and Hoopeston soils. The Mundelein and Hoopeston soils are highly organic, poorly drained soils.

USGS Topographic Map

Benchmark personnel reviewed the United States Geological Survey (USGS) Topographic Map for the subject site. The map illustrated the area to be generally level, with an elevation of approximately 600' above sea level. Regional groundwater flow is assumed to be towards the east. Local groundwater flow paths may vary and would require a site specific study to determine.

ISGS Circular 532

The Illinois State Geological Survey (ISGS) Circular 532 – "Potential for Contamination of Shallow Aquifers in Illinois" map was reviewed. This map illustrated that the subject site is located in a "D2" area. Areas designated as "D2" contain uniform, relatively impermeable silty or clayey till, or other fine-grained materials to a depth of more than

20' BSG. Underlying soils consist of compact, dense basal till that is commonly fine grained. Potential for contamination of shallow aquifers in "D2" areas is low due to the low hydraulic conductivity of the soils.

Copies of the USDA Soil Survey, USGS Topographic Map, and ISGS "Potential for Contamination of Shallow Aquifers in Illinois" maps for the subject site are included in the Appendix section of this report.

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V. Conclusion and Recommendations

Benchmark Environmental Services, Inc. (Benchmark) was retained by Ms. Laurie Bain, of Bain Environmental, Inc., Chicago, Illinois, to perform a Phase II Investigation / Radiological Survey at 160 E. Illinois Street, Chicago, Illinois. This Investigation was performed to address concerns outlined within a prior Phase I Environmental Assessment (project #00273).

Boring locations were determined, to illustrate if contamination is present or non-present adjacent to the UST, near the silver recovery system, and near the water pump at the subject site.

Samples were submitted to field screening as well as physical characterization such as odor, staining, etc. Field screening and physical characterization illustrated no impacts.

Conclusions:
Laboratory analysis illustrated minor impacts to the sample obtained from inside the bricked UST enclosure. The UST appears to be situated upon the concrete floor slab, limiting any migration of contaminants to subsurface soils.

Laboratory analysis illustrated that the sample taken from near the water pump exhibited minor concentrations of Total Xylenes and various PNA compounds well below the current IEPA TACO Tier 1 Cleanup Objectives (CUOs). This sample exhibited concentrations of Benzo(a)Pyrene above the IEPA TACO Tier 1 Cleanup Objectives for Ingestion. This sample exhibited no PCB impacts.

Laboratory analysis illustrated that the samples taken from near the silver recovery system exhibited concentrations of Lead, Cadmium, and Silver above the IEPA TACO Tier 1 CUOs for the sample taken at 1' below surface grade (BSG). The sample taken from 2' BSG exhibited concentrations of Cadmium and Silver above the IEPA TACO Tier 1 CUOs, but at a lower concentration than the sample taken from 1' BSG.

Recommendations:
The elevated levels of metals at the silver recovery system do not pose a health concern at present, as the contaminants are located below a concrete floor slab. Future excavation of these soils would require handling as a "Special Waste" per IEPA regulations. Due to the limited extent of operations and low mobility of the metals, Benchmark believes that the impacted area is of minimal hazard. As previously stated in the Phase I Site Assessment, the silver recovery system and remaining product should be properly removed and the surface area decontaminated. As the UST exhibited only minor leakage, and coupled with the fact that the UST is underlain by a concrete floor slab, Benchmark would recommend registration, permitting and removal or abandonment. Registration can be performed at the time of removal / abandonment permitting.

VI. Qualifications

This report was performed using the degree of care and skill ordinarily exercised, under similar circumstances, by professional consultants practicing in this or similar localities. The findings of this report are valid as of the presentation date. Changes in the condition of the property can occur with the passage of time. These changes can result from changes in legislation, new technologies, or from other reasons. Accordingly, our findings of this report may be validated, wholly or partially, by changes outside of our control.

The interpretations and conclusions contained in this report are based upon the result of independent laboratory tests, and analysis, intended to detect the presence and/or concentrations of certain chemical constituents in the samples taken from the subject property. Benchmark has no control over such testing and analysis, and therefore, disclaims any responsibility for errors and omissions arising therefrom.

Subsurface investigations cannot fully reveal what is located beneath the surface. Depending on sampling locations, some layers and materials may not be encountered, and therefore may not have been sampled or analyzed.

This report has been prepared for the aforementioned client, and may not be used for purposes other than the client's intended use without permission.

This report is issued with the understanding that it is the responsibility of the owners to ensure that the information and recommendations contained herein are brought to the attention of the appropriate regulatory agencies.

VIII. Appendix

- Site Photographs
- Site Location Map
- USDA Soil Survey Map
- ISGS "Potential for Contamination of Shallow Aquifers in Illinois" Map
- USGS Topographic Map
- Soil Boring Locations Diagrams (Tables 1, 1B, & 1C)
- Analytical Results
- Chain of Custody

PHASE II SUBSURFACE INVESTIGATION Performed at
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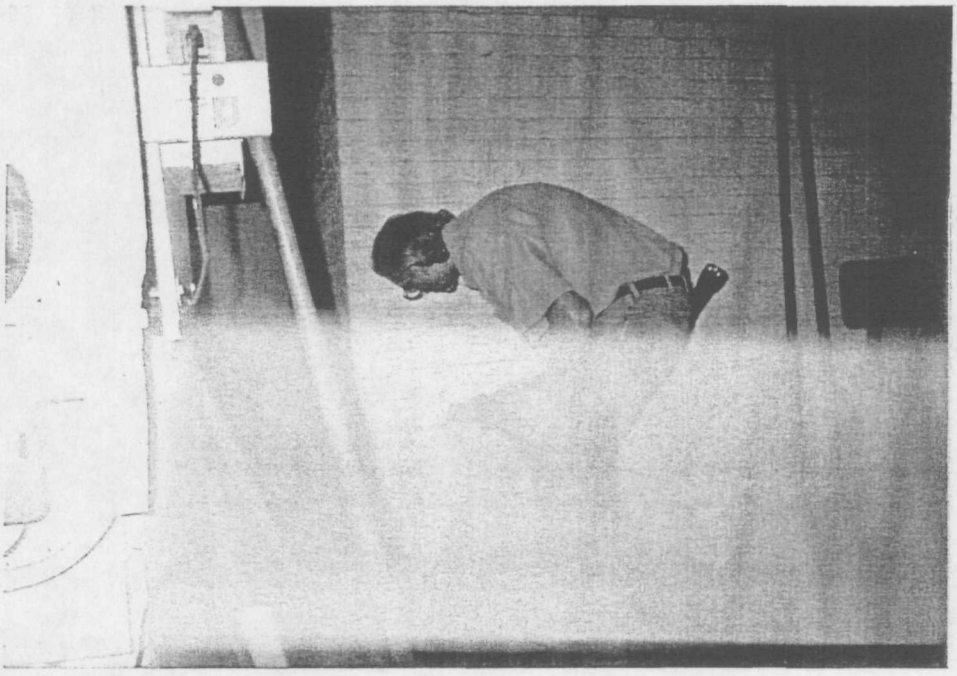
SITE PHOTOGRAPHS



Opening up bricked in enclosure

Repaired enclosure after sampling

PHASE II SUBSURFACE INVESTIGATION Performed at
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SITE PHOTOGRAPHS

Performing Hand Auguring C-1

Repaired Boring C-1

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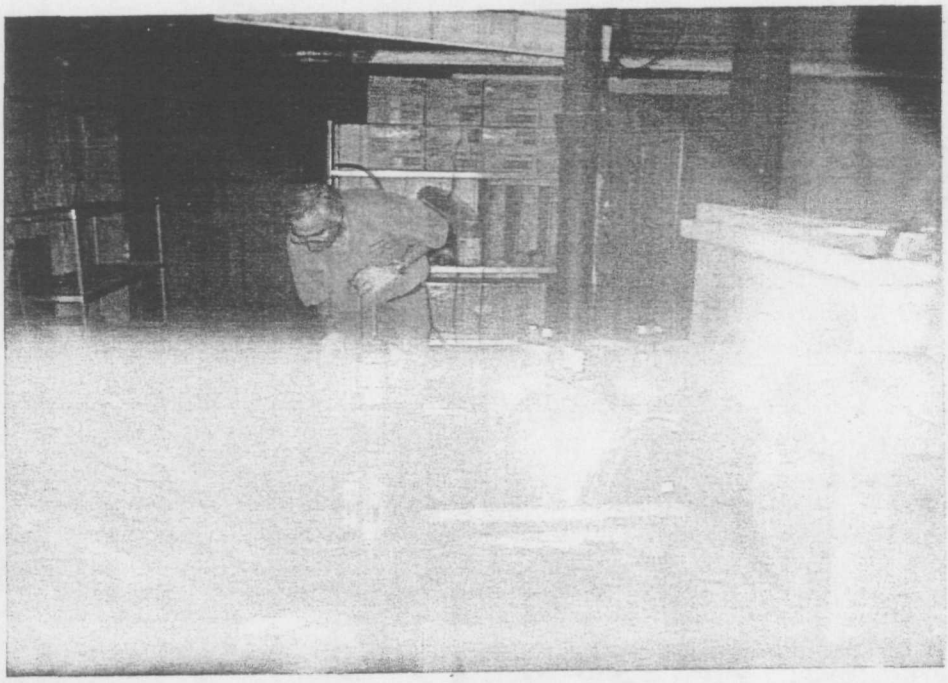
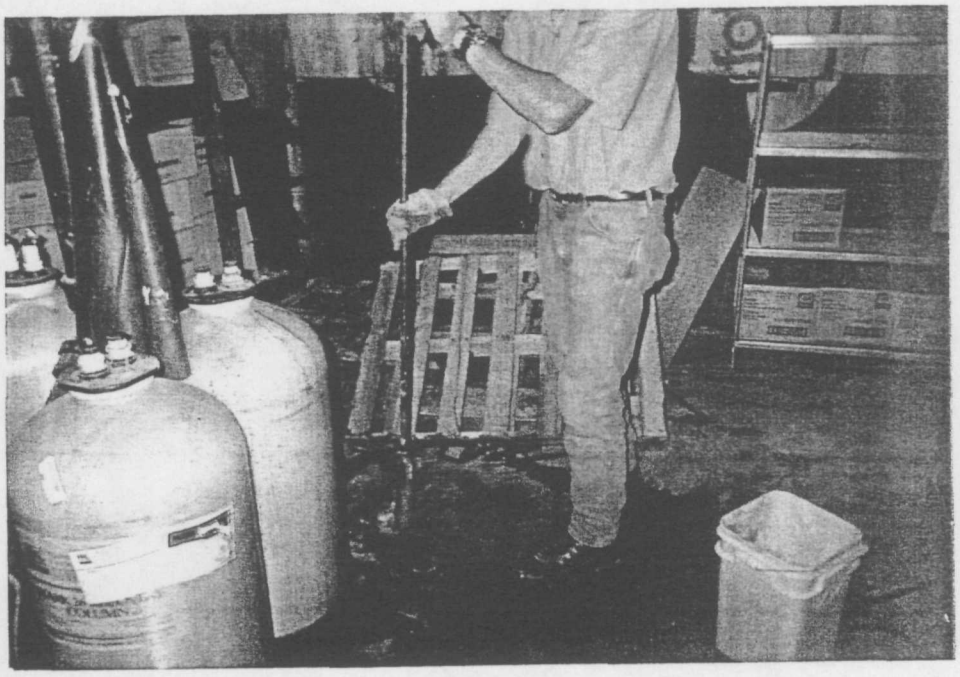
SITE PHOTOGRAPHS

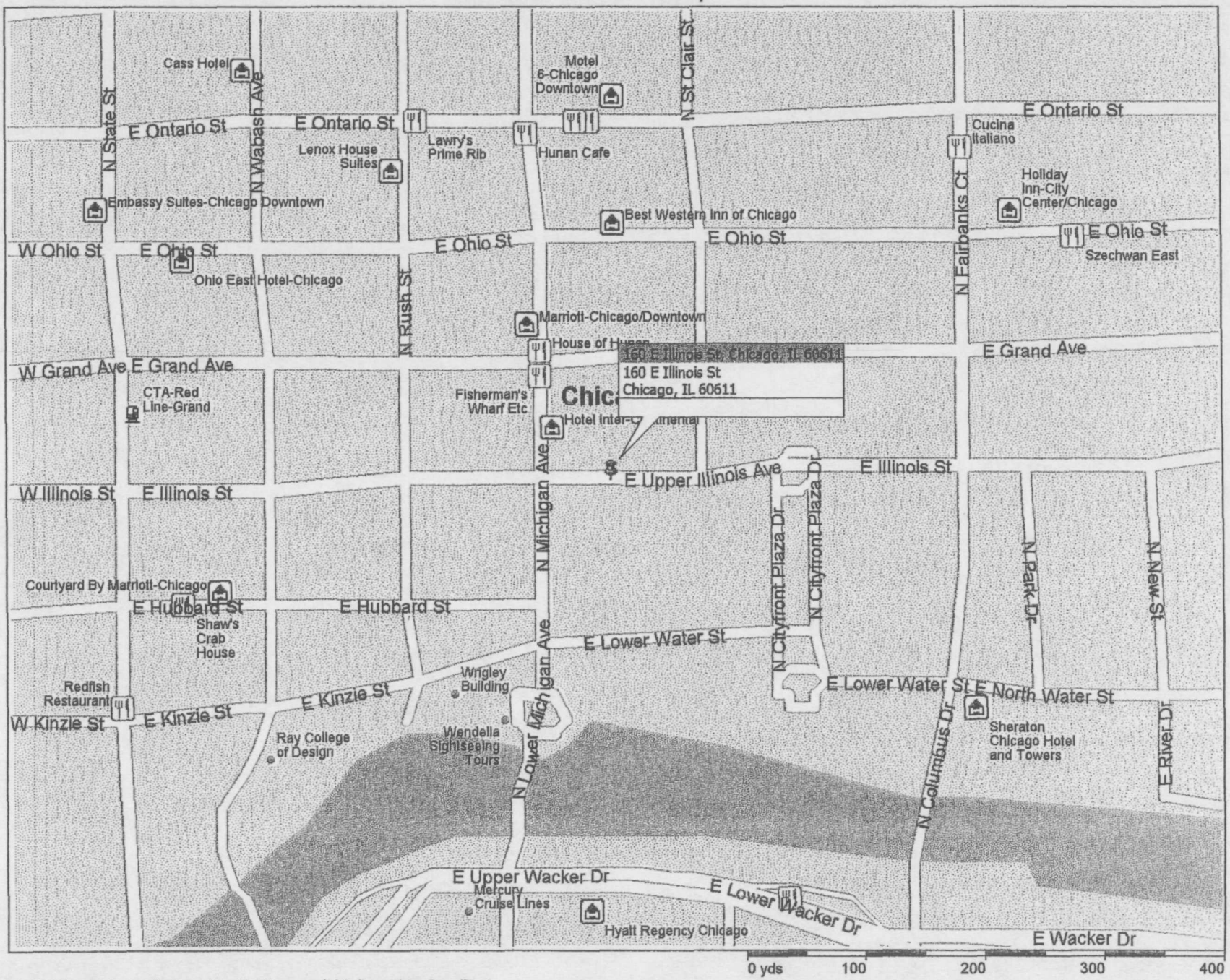


Performing Coring of Boring C-2

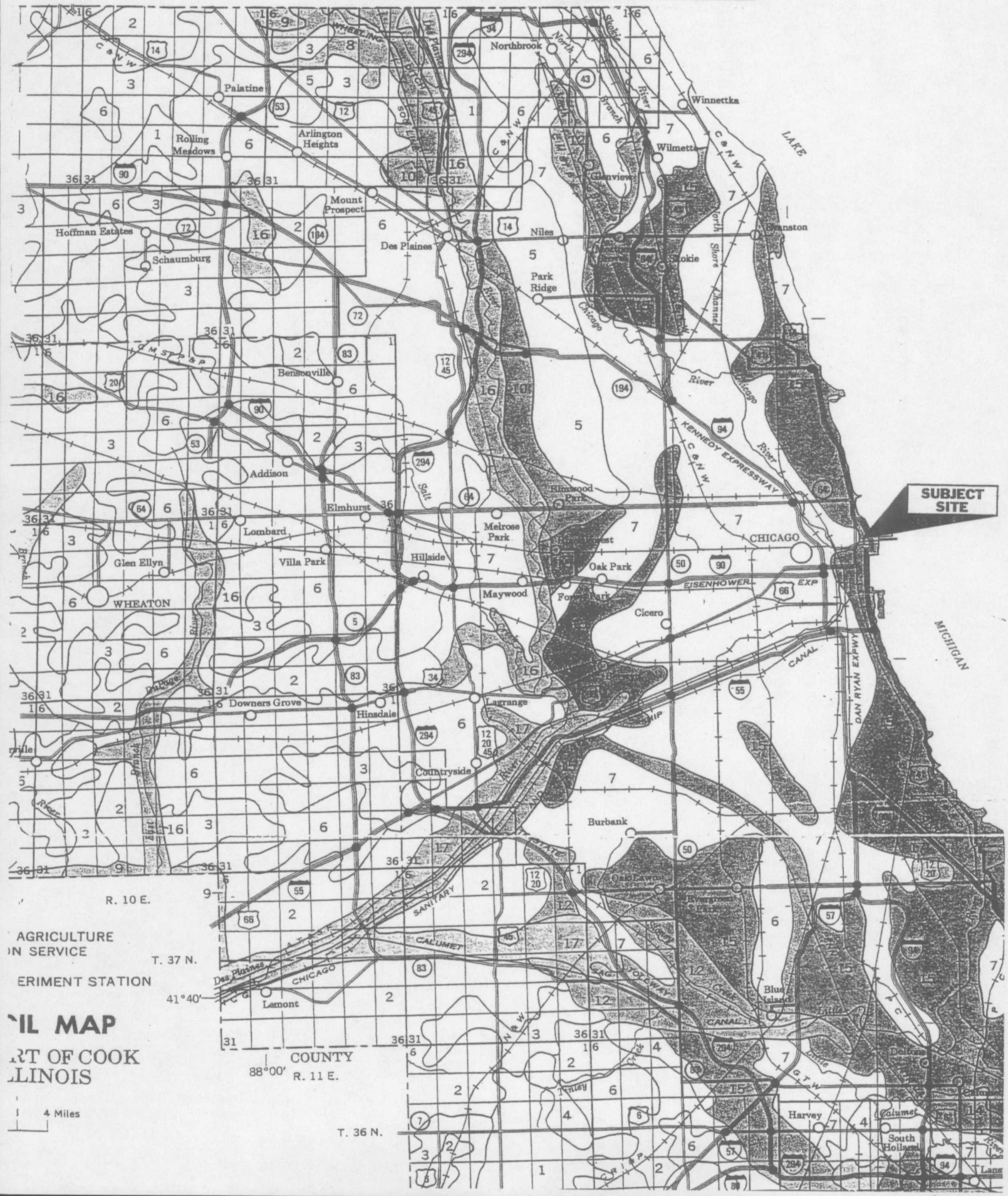


Hand Auguring Boring C-2

Site Location Map



USDA SOIL SURVEY MAP



AGRICULTURE
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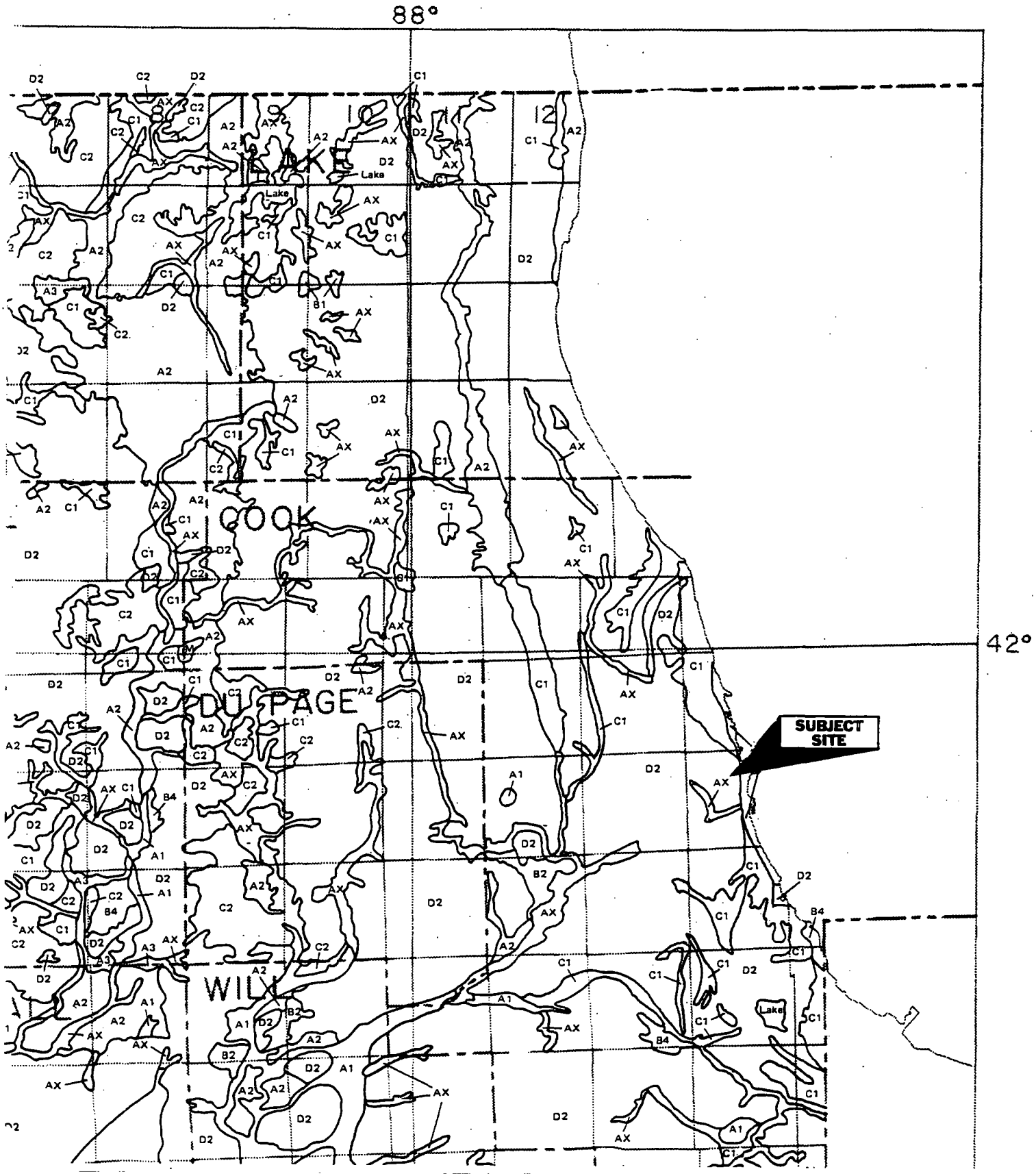
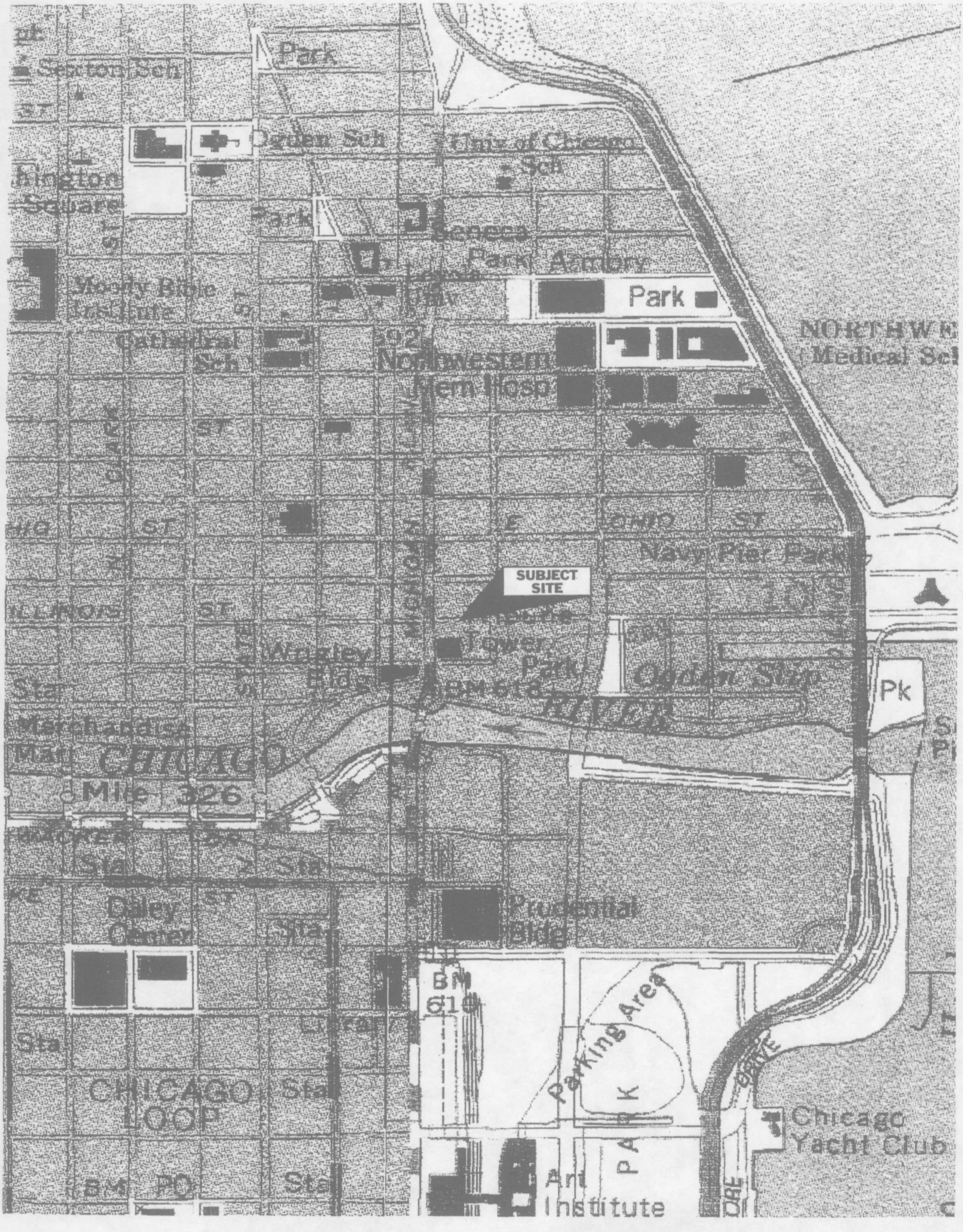
ISGS "POTENTIAL FOR CONTAMINATION OF SHALLOW AQUIFERS IN ILLINOIS" MAP





Park
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Seneca
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Moody Bible
Institute
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Cathedral
Sch
Northwestern
Mem Hosp
Navy Pier Park
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Wrigley
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Ogden Slip
RIVER
Pk
Merchandise
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Mile 326
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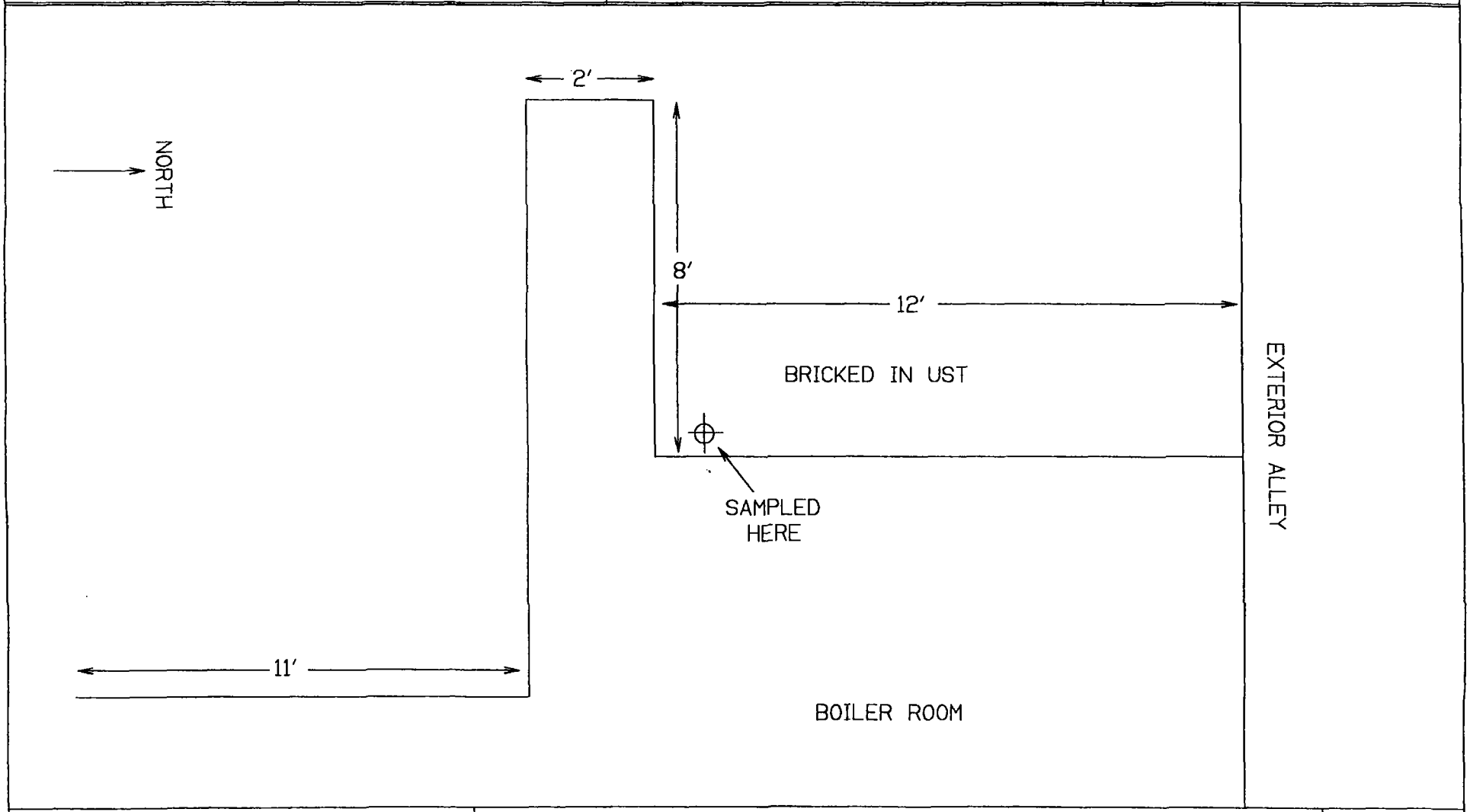
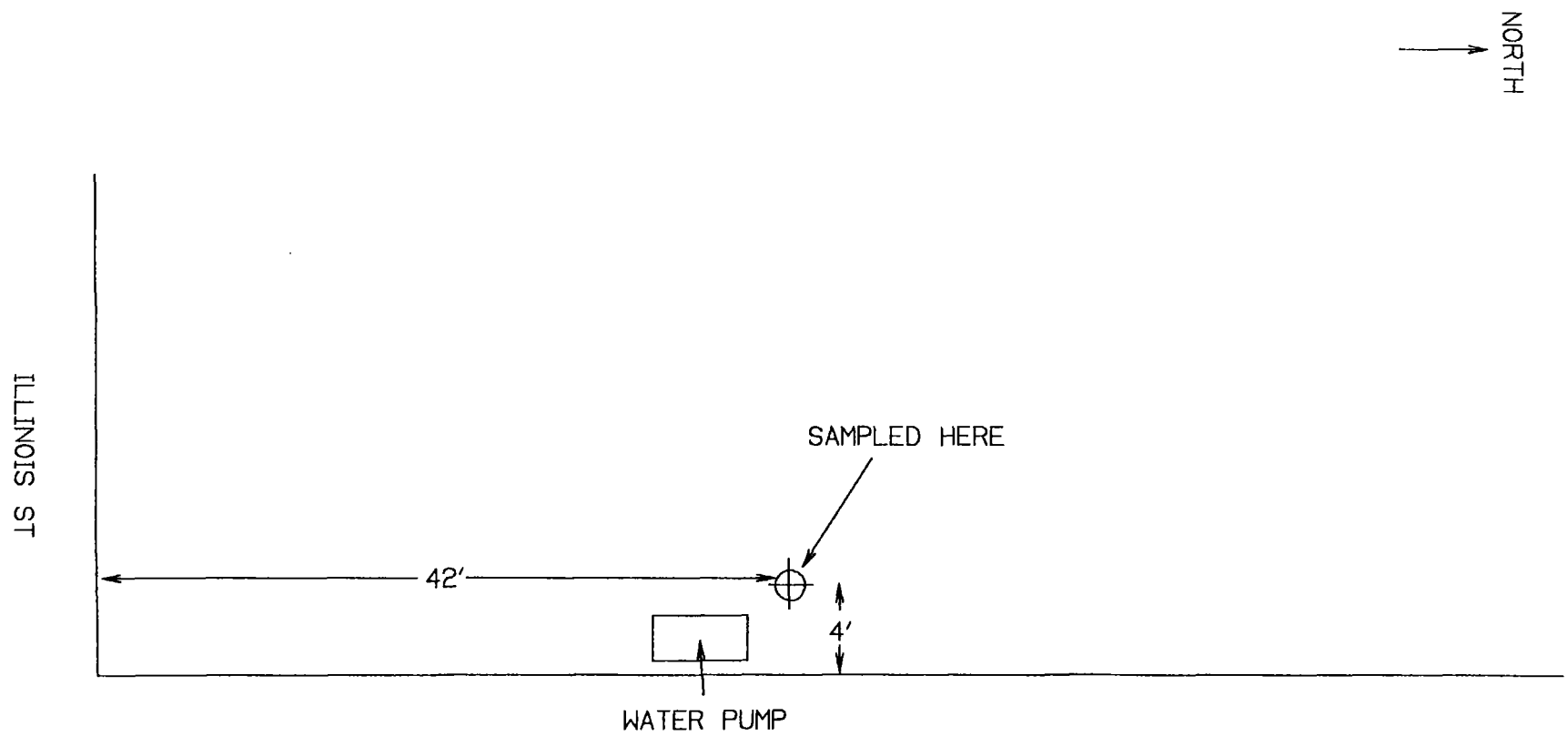
Center
Prudential
Bldg
BM
610
Library
Parking Area
CHICAGO
LOOP
Chicago
Yacht Club
Art
Institute
PO

DWG. DATE : 8/14/2000	PROJECT # 00299B	DRAWING :	DRAFTER : mgn



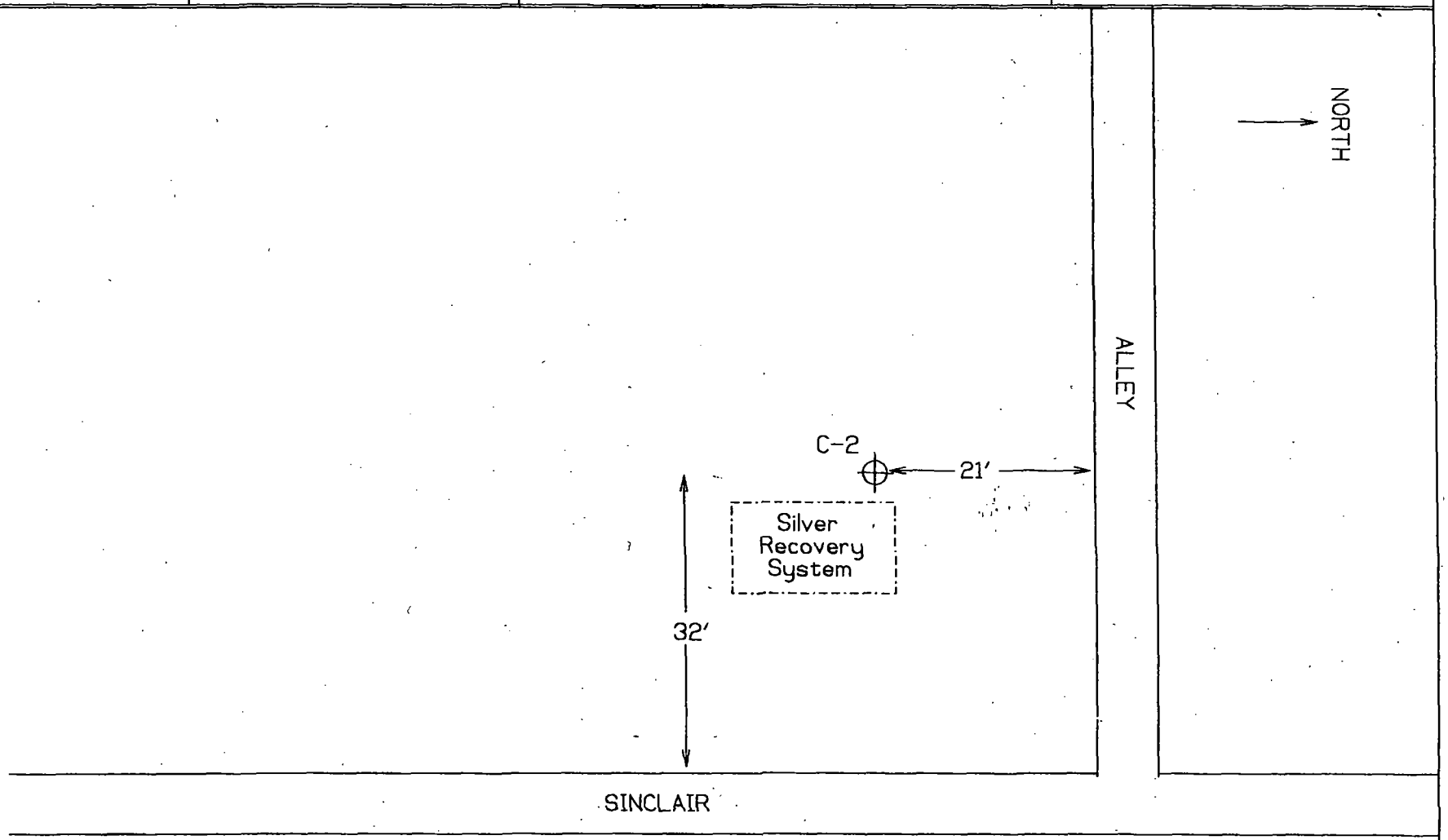
BENCHMARK ENVIRONMENTAL SERVICES INC.	Soil Boring Locations Diagram / Phase II Subsurface Investigation Performed at 160 East Illinois Street, Chicago, Illinois Retained by Ms. Laurie Bain, Bain Environmental, Inc.	FIGURE 1

DWG. DATE: 8/14/2000	PROJECT # 00299B	DRAWING:	DRAFTER: mgn



BENCHMARK ENVIRONMENTAL SERVICES INC.	Soil Boring Locations Diagram / Phase II Subsurface Investigation Performed at 160 East Illinois Street, Chicago, Illinois Retained by Ms. Laurie Bain, Bain Environmental, Inc.	FIGURE 1B

DWG. DATE : 8/14/2000	PROJECT # 00299B	DRAWING :	DRAFTER : mgn



BENCHMARK ENVIRONMENTAL SERVICES INC.	Soil Boring Locations Diagram / Phase II Subsurface Investigation Performed at 160 East Illinois Street, Chicago, Illinois Retained by Ms. Laurie Bain, Bain Environmental, Inc.	FIGURE 1C

Borings done but no rod meas

GREAT LAKES ANALYTICAL

1380 Busch Parkway
Buffalo Grove, Illinois 60089

Email: info@glalabs.com
(847) 808-7766 FAX (847) 808-7772

Benchmark Environmental Services	Project:	160 E. Illinois	Sampled:	7/27/00
42199 N. Lake Ave.	Project Number:	N/A	Received:	7/31/00
Antioch, IL 60002	Project Manager:	Sean Beineke	Reported:	8/7/00 12:40

ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
Bricked in UST Backfill	B007381-01	Soil	7/27/00
C-1/Water Pump	B007381-02	Soil	7/27/00
1` C-2/Silver Recovery System	B007381-03	Soil	7/27/00
2` C-2/Silver Recovery System	B007381-04	Soil	7/27/00

Great Lakes Analytical

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Andy Johnson, Project Manager

GREAT LAKES ANALYTICAL

1380 Busch Parkway
Buffalo Grove, Illinois 60089

Email: info@glalabs.com
(847) 808-7766 FAX (847) 808-7772

Benchmark Environmental Services	Project:	160 E. Illinois	Sampled: 7/27/00
42199 N. Lake Ave.	Project Number:	N/A	Received: 7/31/00
Antioch, IL 60002	Project Manager:	Sean Beineke	Reported: 8/7/00 12:40

Total Metals by EPA 6000/7000 Series Methods
Great Lakes Analytical

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method	Reporting Limit	Result	Units	Notes*
1` C-2/Silver Recovery System			**B007381-03**				**Soil**	
Arsenic	0080025	8/2/00	8/2/00	EPA 6010B	2.50	ND	mg/kg	
Barium	"	"	"	EPA 6010B	25.0	**39.1**	"	
Cadmium	"	"	"	EPA 6010B	0.500	ND	"	
Chromium	"	"	"	EPA 6010B	0.500	**20.3**	"	
Lead	"	"	"	EPA 6010B	1.00	**650**	"	
Selenium	"	"	"	EPA 6010B	2.50	ND	"	
Silver	"	"	"	EPA 6010B	2.50	**63.8**	"	
Mercury	0080078	8/4/00	8/4/00	EPA 7471A	2.04	**7.67**	"	G1,G12
2` C-2/Silver Recovery System			**B007381-04**				**Soil**	
Arsenic	0080025	8/2/00	8/2/00	EPA 6010B	2.50	ND	mg/kg	
Barium	"	"	"	EPA 6010B	25.0	ND	"	
Cadmium	"	"	"	EPA 6010B	0.500	ND	"	
Chromium	"	"	"	EPA 6010B	0.500	**3.20**	"	
Lead	"	"	"	EPA 6010B	1.00	**334**	"	
Selenium	"	"	"	EPA 6010B	2.50	ND	"	
Silver	"	"	"	EPA 6010B	2.50	**2.65**	"	
Mercury	0080078	8/4/00	8/4/00	EPA 7471A	4.04	**15.7**	"	G1,G12

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42199 N. Lake Ave.	Project Number:	N/A	Received: 7/31/00
Antioch, IL 60002	Project Manager:	Sean Beineke	Reported: 8/7/00 12:40

TCLP Metals by EPA 1311/6000/7000 Series Methods
Great Lakes Analytical

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method	Reporting Limit	Result	Units	Notes*
1` C-2/Silver Recovery System			**B007381-03**				**Soil**	
Arsenic	0080051	8/3/00	8/3/00	EPA 6010B	0.100	ND	mg/l	
Barium	"	"	"	EPA 6010B	1.00	ND	"	
Cadmium	"	"	"	EPA 6010B	0.0100	**0.0301**	"	G1
Chromium	"	"	"	EPA 6010B	0.100	ND	"	G1
Selenium	"	"	"	EPA 6010B	0.100	ND	"	
Silver	"	"	"	EPA 6010B	0.0500	ND	"	
Lead	"	"	"	EPA 7421	12.1	**111**	"	G1,G12,G15,G2
Mercury	0080048	"	"	EPA 7470A	0.000200	**0.000881**	"	
2` C-2/Silver Recovery System			**B007381-04**				**Soil**	
Arsenic	0080051	8/3/00	8/3/00	EPA 6010B	0.100	ND	mg/l	
Barium	"	"	"	EPA 6010B	1.00	ND	"	
Cadmium	"	"	"	EPA 6010B	0.0100	**0.0209**	"	G1
Chromium	"	"	"	EPA 6010B	0.100	ND	"	G1
Selenium	"	"	"	EPA 6010B	0.100	ND	"	
Silver	"	"	"	EPA 6010B	0.0500	ND	"	
Lead	"	"	"	EPA 7421	2.52	**11.1**	"	G1,G12,G15,G2
Mercury	0080048	"	"	EPA 7470A	0.000200	**0.000345**	"	

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42199 N. Lake Ave.	Project Number:	N/A	Received: 7/31/00
Antioch, IL 60002	Project Manager:	Sean Beineke	Reported: 8/7/00 12:40

Polychlorinated Biphenyls by EPA Method 8082
Great Lakes Analytical

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
C-1/Water Pump			B007381-02				Soil	
PCB-1016	0080009	8/1/00	8/1/00		25.0	ND	ug/kg	
PCB-1221	"	"	"		25.0	ND	"	
PCB-1232	"	"	"		25.0	ND	"	
PCB-1242	"	"	"		25.0	ND	"	
PCB-1248	"	"	"		25.0	ND	"	
PCB-1254	"	"	"		25.0	ND	"	
PCB-1260	"	"	"		25.0	ND	"	
Surrogate: Tetrachloro-meta-xylene	"	"	"	*25.1-63.6*		*59.9*	*%*	
Surrogate: Decachlorobiphenyl	"	"	"	*12.8-70.4*		*71.9*	"	*O5*

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42199 N. Lake Ave.	Project Number:	N/A	Received: 7/31/00
Antioch, IL 60002	Project Manager:	Sean Beineke	Reported: 8/7/00 12:40

Polynuclear Aromatic Compounds by EPA Method 8310
Great Lakes Analytical

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
Bricked in UST Backfill			**B007381-01**				Soil	G15
Acenaphthene	0080065	8/3/00	8/4/00		30.0	**42.1**	ug/kg	
Acenaphthylene	"	"	"		200	ND	"	
Anthracene	"	"	"		30.0	ND	"	
Benz (a) anthracene	"	"	"		30.0	ND	"	
Benzo (a) pyrene	"	"	"		30.0	ND	"	
Benzo (b) fluoranthene	"	"	"		30.0	ND	"	
Benzo (ghi) perylene	"	"	"		30.0	ND	"	
Benzo (k) fluoranthene	"	"	"		30.0	ND	"	
Chrysene	"	"	"		30.0	ND	"	
Dibenz (a,h) anthracene	"	"	"		30.0	ND	"	
Fluoranthene	"	"	"		30.0	**111**	"	G2
Fluorene	"	"	"		30.0	**50.4**	"	
Indeno (1,2,3-cd) pyrene	"	"	"		30.0	ND	"	
Naphthalene	"	"	"		30.0	**30.8**	"	
Phenanthrene	"	"	"		30.0	**398**	"	
Pyrene	"	"	"		30.0	ND	"	
Surrogate: Carbazole	"	"	"	*37.1-163*		*81.2*	%	
C-1/Water Pump			**B007381-02**				Soil	G15
Acenaphthene	0080065	8/3/00	8/4/00		30.0	**153**	ug/kg	
Acenaphthylene	"	"	"		200	ND	"	
Anthracene	"	"	"		30.0	ND	"	
Benz (a) anthracene	"	"	"		30.0	**258**	"	
Benzo (a) pyrene	"	"	"		30.0	**416**	"	
Benzo (b) fluoranthene	"	"	"		30.0	**266**	"	
Benzo (ghi) perylene	"	"	"		30.0	**309**	"	
Benzo (k) fluoranthene	"	"	"		30.0	**154**	"	
Chrysene	"	"	"		30.0	**305**	"	
Dibenz (a,h) anthracene	"	"	"		30.0	**67.1**	"	
Fluoranthene	"	"	"		30.0	**914**	"	G2
Fluorene	"	"	"		30.0	**34.6**	"	
Indeno (1,2,3-cd) pyrene	"	"	"		30.0	**175**	"	
Naphthalene	"	"	"		30.0	ND	"	
Phenanthrene	"	"	"		30.0	**287**	"	
Pyrene	"	"	"		30.0	**570**	"	
Surrogate: Carbazole	"	"	"	*37.1-163*		*53.5*	%	

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42199 N. Lake Ave.	Project Number:	N/A	Received: 7/31/00
Antioch, IL 60002	Project Manager:	Sean Beineke	Reported: 8/7/00 12:40

BTEX by EPA Method 5035/8021B
Great Lakes Analytical

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
Bricked in UST Backfill			**B007381-01**				**Soil**	
Benzene	0080005	8/1/00	8/1/00		25.0	ND	ug/kg	
Toluene	"	"	"		25.0	ND	"	
Ethylbenzene	"	"	"		25.0	ND	"	
Total Xylenes	"	"	"		25.0	**25.7**	"	
Surrogate: 4-BFB	"	"	"	*74.3-166*		*167*	*%*	*O5*
C-1/Water Pump			**B007381-02**				**Soil**	
Benzene	0080005	8/1/00	8/1/00		25.0	ND	ug/kg	
Toluene	"	"	"		25.0	ND	"	
Ethylbenzene	"	"	"		25.0	ND	"	
Total Xylenes	"	"	"		25.0	**27.0**	"	
Surrogate: 4-BFB	"	"	"	*74.3-166*		*107*	*%*	

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42199 N. Lake Ave.	Project Number:	N/A	Received: 7/31/00
Antioch, IL 60002	Project Manager:	Sean Beineke	Reported: 8/7/00 12:40

Total Metals by EPA 6000/7000 Series Methods/Quality Control
Great Lakes Analytical

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0080025	**Date Prepared: 8/2/00**					**Extraction Method: EPA 3050B**				
Blank	**0080025-BLK1**									
Arsenic	8/2/00			**ND**	mg/kg	**2.50**				
Barium	"			**ND**	"	**25.0**				
Cadmium	"			**ND**	"	**0.500**				
Chromium	"			**ND**	"	**0.500**				
Lead	"			**ND**	"	**1.00**				
Selenium	"			**ND**	"	**2.50**				
Silver	"			**ND**	"	**2.50**				
LCS	**0080025-BS1**									
Arsenic	8/2/00	133		129	mg/kg	59.7-140	97.0			
Barium	"	250		250	"	63.5-131	100			
Cadmium	"	250		240	"	68.6-128	96.0			
Chromium	"	250		244	"	67.9-130	97.6			
Lead	"	250		239	"	65.6-129	95.6			
Selenium	"	70.0		70.3	"	57.1-141	100			
Silver	"	250		214	"	29.4-142	85.6			
Matrix Spike	**0080025-MS1**		**B008016-01**							
Arsenic	8/2/00	133	ND	101	mg/kg	24.2-138	**75.9**			
Barium	"	250	47.7	264	"	14.1-160	**86.5**			
Cadmium	"	250	ND	190	"	42.0-115	**76.0**			
Chromium	"	250	12.9	205	"	18.7-130	**76.8**			
Lead	"	250	4.55	202	"	29.5-129	**79.0**			
Selenium	"	70.0	ND	55.5	"	29.0-124	**79.3**			
Silver	"	250	ND	134	"	24.7-124	**53.6**			
Matrix Spike Dup	**0080025-MSD1**		**B008016-01**							
Arsenic	8/2/00	131	ND	85.2	mg/kg	24.2-138	**65.0**	38.9	**15.5**	
Barium	"	248	47.7	229	"	14.1-160	**73.1**	65.1	**16.8**	
Cadmium	"	248	ND	162	"	42.0-115	**65.3**	22.0	**15.1**	
Chromium	"	248	12.9	176	"	18.7-130	**65.8**	36.8	**15.4**	
Lead	"	248	4.55	171	"	29.5-129	**67.1**	50.6	**16.3**	
Selenium	"	69.3	ND	48.5	"	29.0-124	**70.0**	47.2	**12.5**	
Silver	"	248	ND	126	"	24.7-124	**50.8**	33.7	**5.36**	

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42199 N. Lake Ave.	Project Number: N/A	Received:	7/31/00
Antioch, IL 60002	Project Manager: Sean Beineke	Reported:	8/7/00 12:40

TCLP Metals by EPA 1311/6000/7000 Series Methods/Quality Control
Great Lakes Analytical

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit / Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0080048	**Date Prepared: 8/3/00**					**Extraction Method: EPA 7470A**				
Blank	**0080048-BLK1**									
Mercury	8/3/00			**ND**	mg/l	**0.000200**				
LCS	**0080048-BS1**									
Mercury	8/3/00	0.00100		0.000988	mg/l	78.6-123	98.8			
Matrix Spike	**0080048-MS1**		**B008018-01**							
Mercury	8/3/00	0.00100	0.000235	0.00134	mg/l	79.5-134	**110**			
Matrix Spike Dup	**0080048-MSD1**		**B008018-01**							
Mercury	8/3/00	0.00100	0.000235	0.00134	mg/l	79.5-134	**110**	8.21	**0**	
Batch: 0080051	**Date Prepared: 8/3/00**					**Extraction Method: EPA 3015**				
Blank	**0080051-BLK1**									
Arsenic	8/3/00			**ND**	mg/l	**0.100**				
Barium	"			**ND**	"	**1.00**				
Cadmium	"			**ND**	"	**0.0100**				
Chromium	"			**ND**	"	**0.100**				
Selenium	"			**ND**	"	**0.100**				
Silver	"			**ND**	"	**0.0500**				
Lead	"			**ND**	"	**0.00500**				
LCS	**0080051-BS1**									
Arsenic	8/3/00	0.589		0.587	mg/l	72.9-133	99.7			
Barium	"	1.11		1.11	"	67.5-143	100			
Cadmium	"	0.558		0.553	"	70.7-138	99.1			
Chromium	"	1.12		1.14	"	62.1-152	102			
Selenium	"	0.311		0.305	"	70.4-144	98.1			
Silver	"	0.567		0.623	"	64.9-158	110			
Lead	"	0.0333		0.0360	"	85.0-152	108			
Matrix Spike	**0080051-MS1**		**B007381-04**							
Arsenic	8/3/00	0.589	ND	0.768	mg/l	62.6-137	**130**			
Barium	"	1.11	ND	1.67	"	51.3-154	**150**			
Cadmium	"	0.558	0.0209	0.751	"	72.9-127	**131**			
Chromium	"	1.12	ND	1.48	"	73.6-129	**132**			
Selenium	"	0.311	ND	0.457	"	54.3-155	**147**			
Silver	"	0.567	ND	0.287	"	26.8-167	**50.6**			

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Antioch, IL 60002	Project Manager:	Sean Beineke	Reported: 8/7/00 12:40

TCLP Metals by EPA 1311/6000/7000 Series Methods/Quality Control
Great Lakes Analytical

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Matrix Spike (continued)	**0080051-MS1**		**B007381-04**							
Lead	8/3/00	0.0333	11.1	10.9	mg/l	57.0-172	**NR**			
Matrix Spike Dup	**0080051-MSD1**		**B007381-04**							
Arsenic	8/3/00	0.589	ND	0.763	mg/l	62.6-137	**130**	20.2	**0**	
Barium	"	1.11	ND	1.65	"	51.3-154	**149**	26.7	**0.669**	
Cadmium	"	0.558	0.0209	0.755	"	72.9-127	**132**	21.2	**0.760**	
Chromium	"	1.12	ND	1.48	"	73.6-129	**132**	16.1	**0**	
Selenium	"	0.311	ND	0.433	"	54.3-155	**139**	27.9	**5.59**	
Silver	"	0.567	ND	0.304	"	26.8-167	**53.6**	34.9	**5.76**	
Lead	"	0.0333	11.1	12.6	"	57.0-172	**NR**	24.2	**NR**	

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Antioch, IL 60002	Project Manager:	Sean Beineke	Reported: 8/7/00 12:40

Polychlorinated Biphenyls by EPA Method 8082/Quality Control
Great Lakes Analytical

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit / Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0080009	**Date Prepared: 8/1/00**					**Extraction Method: EPA 3550B**				
Blank	**0080009-BLK1**									
PCB-1016	8/2/00			**ND**	ug/kg	**25.0**				
PCB-1221	"			**ND**	"	**25.0**				
PCB-1232	"			**ND**	"	**25.0**				
PCB-1242	"			**ND**	"	**25.0**				
PCB-1248	"			**ND**	"	**25.0**				
PCB-1254	"			**ND**	"	**25.0**				
PCB-1260	"			**ND**	"	**25.0**				
Surrogate: Tetrachloro-meta-xylene	"	*16.5*		*11.6*	"	*25.1-63.6*	*70.3*			
Surrogate: Decachlorobiphenyl	"	*16.5*		*13.0*	"	*12.8-70.4*	*78.8*			
LCS	**0080009-BS1**									
PCB-1016	8/2/00	80.7		58.0	ug/kg	10.0-135	71.9			
PCB-1260	"	80.7		64.6	"	10.0-118	80.0			
Surrogate: Tetrachloro-meta-xylene	"	*16.1*		*11.5*	"	*25.1-63.6*	*71.4*			
Surrogate: Decachlorobiphenyl	"	*16.1*		*14.8*	"	*12.8-70.4*	*91.9*			
Matrix Spike	**0080009-MS1**		**B007378-07**							
PCB-1016	8/2/00	85.0	ND	47.8	ug/kg	14.3-134	**56.2**			
PCB-1260	"	85.0	ND	73.9	"	10.0-173	**86.9**			
Surrogate: Tetrachloro-meta-xylene	"	*17.0*		*12.1*	"	*25.1-63.6*	*71.2*			
Surrogate: Decachlorobiphenyl	"	*17.0*		*10.6*	"	*12.8-70.4*	*62.4*			
Matrix Spike Dup	**0080009-MSD1**		**B007378-07**							
PCB-1016	8/2/00	84.4	ND	40.6	ug/kg	14.3-134	**48.1**	74.2	**15.5**	
PCB-1260	"	84.4	ND	78.4	"	10.0-173	**92.9**	51.5	**6.67**	
Surrogate: Tetrachloro-meta-xylene	"	*16.9*		*13.0*	"	*25.1-63.6*	*76.9*			
Surrogate: Decachlorobiphenyl	"	*16.9*		*11.8*	"	*12.8-70.4*	*69.8*			

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42199 N. Lake Ave.	Project Number:	N/A	Received: 7/31/00
Antioch, IL 60002	Project Manager:	Sean Beineke	Reported: 8/7/00 12:40

Polynuclear Aromatic Compounds by EPA Method 8310/Quality Control
Great Lakes Analytical

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit / Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0080065	**Date Prepared: 8/3/00**					**Extraction Method: EPA 3550B**				
Blank	**0080065-BLK1**									
Acenaphthene	8/4/00			ND	ug/kg	30.0				
Acenaphthylene	"			ND	"	200				
Anthracene	"			ND	"	30.0				
Benz (a) anthracene	"			ND	"	30.0				
Benzo (a) pyrene	"			ND	"	30.0				
Benzo (b) fluoranthene	"			ND	"	30.0				
Benzo (ghi) perylene	"			ND	"	30.0				
Benzo (k) fluoranthene	"			ND	"	30.0				
Chrysene	"			ND	"	30.0				
Dibenz (a,h) anthracene	"			ND	"	30.0				
Fluoranthene	"			ND	"	30.0				
Fluorene	"			ND	"	30.0				
Indeno (1,2,3-cd) pyrene	"			ND	"	30.0				
Naphthalene	"			ND	"	30.0				
Phenanthrene	"			ND	"	30.0				
Pyrene	"			ND	"	30.0				
Surrogate: Carbazole	"	*172*		*119*	"	*37.1-163*	*69.2*			
LCS	**0080065-BS1**									
Acenaphthene	8/4/00	1370		709	ug/kg	23.5-114	51.8			
Acenaphthylene	"	1370		1220	"	44.8-131	89.1			
Anthracene	"	1370		1210	"	16.5-141	88.3			
Benz (a) anthracene	"	1370		1240	"	43.1-126	90.5			
Benzo (a) pyrene	"	1370		1110	"	44.8-119	81.0			
Benzo (b) fluoranthene	"	1370		1140	"	45.0-128	83.2			
Benzo (ghi) perylene	"	1370		1330	"	40.6-139	97.1			
Benzo (k) fluoranthene	"	1370		1300	"	46.4-133	94.9			
Chrysene	"	1370		1270	"	44.1-130	92.7			
Dibenz (a,h) anthracene	"	1370		1370	"	43.7-139	100			
Fluoranthene	"	1370		1280	"	49.8-128	93.4			
Fluorene	"	1370		1020	"	32.6-123	74.5			
Indeno (1,2,3-cd) pyrene	"	1370		1310	"	46.8-133	95.6			
Naphthalene	"	1370		1120	"	41.2-114	81.8			
Phenanthrene	"	1370		1080	"	39.4-120	78.8			
Pyrene	"	1370		1360	"	22.2-143	99.3			
Surrogate: Carbazole	"	*172*		*164*	"	*37.1-163*	*95.3*			

Great Lakes Analytical

**Refer to end of report for text of notes and definitions.*

Andy Johnson, Project Manager

GREAT LAKES ANALYTICAL

1380 Busch Parkway
Buffalo Grove, Illinois 60089

Email: info@glalabs.com
(847) 808-7766 FAX (847) 808-7772

Benchmark Environmental Services	Project:	160 E. Illinois	Sampled: 7/27/00
42199 N. Lake Ave.	Project Number:	N/A	Received: 7/31/00
Antioch, IL 60002	Project Manager:	Sean Beineke	Reported: 8/7/00 12:40

Polynuclear Aromatic Compounds by EPA Method 8310/Quality Control
Great Lakes Analytical

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Matrix Spike	**0080065-MS1**		**B007381-01**							
Acenaphthene	8/4/00	1330	42.1	824	ug/kg	10.0-113	**58.8**			
Acenaphthylene	"	1330	ND	1790	"	10.0-145	**135**			
Anthracene	"	1330	ND	878	"	17.2-117	**66.0**			
Benz (a) anthracene	"	1330	ND	950	"	18.3-116	**71.4**			
Benzo (a) pyrene	"	1330	ND	913	"	26.2-118	**68.6**			
Benzo (b) fluoranthene	"	1330	ND	884	"	22.4-126	**66.5**			
Benzo (ghi) perylene	"	1330	ND	1010	"	42.3-111	**75.9**			
Benzo (k) fluoranthene	"	1330	ND	975	"	27.2-118	**73.3**			
Chrysene	"	1330	ND	978	"	10.0-131	**73.5**			
Dibenz (a,h) anthracene	"	1330	ND	1030	"	26.2-122	**77.4**			
Fluoranthene	"	1330	111	958	"	21.8-132	**63.7**			
Fluorene	"	1330	50.4	829	"	12.6-113	**58.5**			
Indeno (1,2,3-cd) pyrene	"	1330	ND	969	"	23.6-128	**72.9**			
Naphthalene	"	1330	30.8	887	"	10.0-128	**64.4**			
Phenanthrene	"	1330	398	1470	"	10.0-119	**80.6**			
Pyrene	"	1330	ND	1190	"	17.9-125	**89.5**			
Surrogate: Carbazole	"	*166*		*147*	"	*37.1-163*	*88.6*			
Matrix Spike Dup	**0080065-MSD1**		**B007381-01**							
Acenaphthene	8/4/00	1300	42.1	316	ug/kg	10.0-113	**21.1**	101	**94.4**	
Acenaphthylene	"	1300	ND	1630	"	10.0-145	**125**	83.7	**7.69**	
Anthracene	"	1300	ND	453	"	17.2-117	**34.8**	53.4	**61.9**	
Benz (a) anthracene	"	1300	ND	550	"	18.3-116	**42.3**	63.7	**51.2**	
Benzo (a) pyrene	"	1300	ND	529	"	26.2-118	**40.7**	54.4	**51.1**	
Benzo (b) fluoranthene	"	1300	ND	495	"	22.4-126	**38.1**	54.6	**54.3**	
Benzo (ghi) perylene	"	1300	ND	550	"	42.3-111	**42.3**	57.8	**56.9**	
Benzo (k) fluoranthene	"	1300	ND	542	"	27.2-118	**41.7**	52.3	**55.0**	
Chrysene	"	1300	ND	532	"	10.0-131	**40.9**	58.5	**57.0**	
Dibenz (a,h) anthracene	"	1300	ND	544	"	26.2-122	**41.8**	53.1	**59.7**	
Fluoranthene	"	1300	111	329	"	21.8-132	**16.8**	67.9	**117**	
Fluorene	"	1300	50.4	357	"	12.6-113	**23.6**	68.0	**85.0**	
Indeno (1,2,3-cd) pyrene	"	1300	ND	529	"	23.6-128	**40.7**	52.3	**56.7**	
Naphthalene	"	1300	30.8	369	"	10.0-128	**26.0**	57.7	**85.0**	
Phenanthrene	"	1300	398	813	"	10.0-119	**31.9**	165	**86.6**	
Pyrene	"	1300	ND	600	"	17.9-125	**46.2**	80.0	**63.8**	
Surrogate: Carbazole	"	*163*		*80.3*	"	*37.1-163*	*49.3*			

Great Lakes Analytical

**Refer to end of report for text of notes and definitions.*

Andy Johnson, Project Manager

GREAT LAKES ANALYTICAL

1380 Busch Parkway
Buffalo Grove, Illinois 60089

Email: info@glalabs.com
(847) 808-7766 FAX (847) 808-7772

Benchmark Environmental Services	Project:	160 E. Illinois	Sampled: 7/27/00
42199 N. Lake Ave.	Project Number:	N/A	Received: 7/31/00
Antioch, IL 60002	Project Manager:	Sean Beineke	Reported: 8/7/00 12:40

BTEX by EPA Method 5035/8021B/Quality Control
Great Lakes Analytical

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit / Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0080005	**Date Prepared: 8/1/00**					**Extraction Method: EPA 5030B [MeOH]**				
Blank	**0080005-BLK1**									
Benzene	8/2/00			**ND**	ug/kg	**25.0**				
Toluene	"			**ND**	"	**25.0**				
Ethylbenzene	"			**ND**	"	**25.0**				
Total Xylenes	"			**ND**	"	**25.0**				
Surrogate: 4-BFB	"	*1000*		*968*	"	*74.3-166*	*96.8*			
LCS	**0080005-BS1**									
Benzene	8/1/00	1000		924	ug/kg	28.8-155	92.4			
Toluene	"	1000		947	"	45.7-141	94.7			
Ethylbenzene	"	1000		1050	"	52.3-143	105			
Total Xylenes	"	3000		3120	"	51.3-142	104			
Surrogate: 4-BFB	"	*1000*		*977*	"	*74.3-166*	*97.7*			
LCS Dup	**0080005-BSD1**									
Benzene	8/1/00	1000		1110	ug/kg	28.8-155	111	66.2	18.3	
Toluene	"	1000		1050	"	45.7-141	105	48.6	10.3	
Ethylbenzene	"	1000		1160	"	52.3-143	116	45.3	9.95	
Total Xylenes	"	3000		3460	"	51.3-142	115	45.5	10.0	
Surrogate: 4-BFB	"	*1000*		*1010*	"	*74.3-166*	*101*			

Great Lakes Analytical

**Refer to end of report for text of notes and definitions.*

Andy Johnson, Project Manager

GREAT LAKES ANALYTICAL

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Buffalo Grove, Illinois 60089

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(847) 808-7766 FAX (847) 808-7772

Benchmark Environmental Services	Project:	160 E. Illinois	Sampled: 7/27/00
42199 N. Lake Ave.	Project Number:	N/A	Received: 7/31/00
Antioch, IL 60002	Project Manager:	Sean Beineke	Reported: 8/7/00 12:40

Notes and Definitions

#	Note
G1	The recovery of one or more analytes in the matrix QC (MS/MSD) associated with this sample is above the laboratory's established acceptance criteria. Refer to the included QC reports for more detail.
G12	The reporting limit of this sample/analyte is elevated due to sample matrix and/or other effects.
G15	The relative percent difference (RPD) of one or more analytes in the matrix QC (MS/MSD) associated with this sample is above the laboratory's established acceptance limits. Refer to the included QC reports for more detail.
G2	The recovery of one or more analytes in the matrix QC (MS/MSD) associated with this sample is below the laboratory's established acceptance criteria. Refer to the included QC reports for more detail.
O5	The recovery for this analyte is above the laboratory's established acceptance criteria.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
Recov.	Recovery
RPD	Relative Percent Difference

Great Lakes Analytical

Andy Johnson, Project Manager

GREAT LAKES ANALYTICAL

CHAIN OF CUSTODY REPORT

1380 Busch Parkway
Buffalo Grove, IL 60089-4505
(847) 808-7766
FAX (847) 808-7772

140 E. Ryan Road
Oak Creek, WI 53154
(414) 570-9460
FAX (414) 570-9461

Client: Benchmade Environmental Services, Inc.
Address: 42199 N. Cable Ave.
Antioch, IL 60002
Report to: Sean
Phone #: (847) 838-5811
Fax #: (847) 838-5815

Bill To: Same
Address:
State & Program: IL
Phone #: ( )
Fax #: ( )

TAT: (5 DAY) 4 DAY 3 DAY 2 DAY 1 DAY < 24 HRS.
DATE RESULTS NEEDED:
TEMPERATURE UPON RECEIPT:
Deliverable Package Needed: ☐ STD ☐ III A ☐ IIIB ☐ Other

Project: 1100 E. Illinois
Sampler: SB / WK
PO/Quote #:

	FIELD ID, LOCATION	DATE COLLECTED	TIME COLLECTED	SAMPLE MATRIX	# of Bottles Preservative Used: MeOH	NaHSO4	HCl	HNO3	H2SO4	NaOH	NONE	TOTAL # OF BOTTLES	BTEX (5035)	PNA	PCB	TCLP Metals	Total Metals	ANALYSIS TYPE	SAMPLE CONTROL: CRACKED/BROKEN	IMPROPERLY SEALED	GOOD CONDITION	LABORATORY ID NUMBER
1	Bricked in UST Backfill PID:	7/27		Soil	1	1					2	4	✓	✓								B007381-01
2	C-1 / Water Pump PID:	↓		↓	1	1					2	4	✓	✓	✓							-02
3	1' C-2 / Silver Recovery System PID:										2	2				✓	✓					-03
4	2' C-2 / Silver Recovery System PID:	7/27		Soil							2	2				✓	✓					-04
5	PID:																					
6	PID:																					
7	PID:																					
8	PID:																					
9	PID:																					
10	PID:																					

RELINQUISHED	DATE / TIME	RECEIVED	DATE / TIME	RELINQUISHED	DATE / TIME	RECEIVED	DATE / TIME
Sean Beirle	7/27/00	[illegible]	7.28				7.31.00
RELINQUISHED	DATE / TIME	RECEIVED	DATE / TIME	RELINQUISHED	DATE / TIME	RECEIVED	DATE / TIME

COMMENTS:

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